

CHAPTER 17

ASBESTOS CONTROL

1701. Applicability

a. The provisions of this chapter apply to industrial and construction activities and supplement the Department of Labor (DOL) Standards, references 17-1 through 17-3.

b. Shore activities shall conduct ship-board work per this chapter and reference 17-3. Chapter B1 of reference 17-4 describes the asbestos control program for forces afloat.

c. Whether state and local requirements in asbestos removal and disposal work are applicable depends on whether the workers are Federal or contract workers and if the requirements originate from state and local occupational safety and health (OSH) or from Clean Air Act requirements. Applicability is a complex legal issue that should be decided by qualified legal counsel familiar with the particular jurisdictions in question. Appendix 17-A provides assistance to legal counsel in determining applicability of state and local requirements.

1702. Discussion

a. This chapter provides guidance for controlling or eliminating the exposure of Navy personnel to asbestos during the use, removal, and disposal of asbestos-containing materials (ACM).

b. Navy policy is to eliminate asbestos hazards by substitution with asbestos free material or, where this is not possible, through the use of engineering, administrative controls and respiratory protection. Do not remove installed asbestos containing materials, which are in good condition, for the sole purpose of eliminating asbestos.

Commands shall use only suitable asbestos substitute materials approved through identification and testing. Commands shall not use existing supplies of ACM whenever there are acceptable substitutes.

Navy personnel worldwide shall strictly enforce and adhere to the standards and controls discussed in this chapter.

c. Asbestos is a general term which applies to a variety of naturally occurring mineral silicates, e.g., chrysotile, amosite, crocidolite, tremolite asbestos, anthophyllite asbestos, and actinolite asbestos or any products composed of these minerals.

Asbestos is generally a fibrous material which is incombustible and possesses high tensile strength, good thermal and electrical insulation properties, and moderate to good chemical resistance. The beneficial properties of asbestos make it ideal for many diverse uses such as:

(1) Application of ACM Thermal System Insulation (TSI) to pipes, fittings, boilers, breeching, tanks, ducts, or other interior structural components to prevent heat energy transfer or water condensation

(2) Surfacing. ACM is sprayed on, troweled on, or otherwise applied to surfaces such as acoustical plaster on ceilings, fireproofing materials on structural members or other materials on surfaces for fireproofing, acoustical, or other purposes.

(3) Miscellaneous. ACM which is not TSI or surfacing (such as brakes, clutches, floor covering, gaskets, roofing, and cementitious materials).

d. Asbestos is now known to be a major health hazard. Inhalation of asbestos fibers may cause asbestosis, pleural thickening, lung cancer and mesothelioma and also may cause cancer of the gastrointestinal tract. If exposure is combined with smoking, the risk of developing lung cancer is increased dramatically.

e. The extended latency period of asbestos-related disease, lack of adequate past exposure data, effects of other carcinogens, and the variability of human response make safe levels of exposure difficult to determine. Between the first asbestos exposure and the appearance of symptoms, latency periods of 20 to 40 years have been observed.

1703. Permissible Exposure Limit and Excursion Limit

a. Permissible Exposure Limit (PEL). The PEL for asbestos is 0.1 fibers per cubic centimeter (f/cc) of air, calculated as an 8-hour time-weighted average (TWA) exposure. Fibers are particles having a length-to-width ratio of three (or more) to one (3:1), and 5 micrometers or longer.

b. Excursion Limit (EL). The EL is 1.0 f/cc averaged over a 30-minute sampling period. Personnel using the PEL shall also consider the EL.

c. Employee Notification. Affected employees shall receive notice of exposure, in writing per references 17-1, 17-2 and/or 17-3.

1704. Control of Asbestos in the Workplace Environment

Chapter 5 discusses the basic principles for controlling hazards in the occupational environment, including substitution with less hazardous material (HM), engineering controls (e.g., isolation, ventilation), and the use of personal protective equipment

(PPE). Prepare written asbestos control procedures, which set forth these engineering and work practice controls and review and update, as necessary. References 17-1, 17-2, and 17-3 require specific work practices and engineering controls based on the type of ACM and type of work. Commands shall train project personnel per reference 17-5 and prohibit administrative controls, such as employee rotations, as a means of keeping the exposure below the PEL.

a. General Workplace Control Practices.

(1) Cognizant headquarters activity will approve non-asbestos-containing substitute materials, which shall replace ACM. Replacement or substitution of friable ACM, such as asbestos thermal insulation and sprayed on asbestos, is of primary concern because friable ACM are loosely bound and can easily crumble or be pulverized.

(2) Whenever practicable, handle, mix, apply, remove, cut, score, or otherwise work asbestos in a wet state sufficient to prevent the emission of airborne fibers in excess of the PEL. Do not remove asbestos cement, mortar, coating, grout, or similar material containing asbestos from its container (e.g., bag, box, etc.) without wetting, enclosing or ventilating to prevent any airborne release of asbestos. When wetting decreases its usefulness, use enclosures or ventilation to reduce the emission of airborne fibers. Do not apply materials containing asbestos by spray methods, under any circumstances.

(3) Establish regulated areas as required by section (e) of references 17-1, 17-2, and 17-3. Do not eat, drink, smoke, chew tobacco or gum, or apply cosmetics when involved in asbestos-related work activities in the regulated area.

(4) Establish procedures to minimize the accumulation of asbestos-laden waste, dust, and scrap materials. Institute specific procedures for the containment of asbestos dust and handling of ACM to minimize the possibility of secondary air contamination. Promptly clean up and dispose of wastes and debris contaminated with asbestos in leak-tight containers. Adequately wet material and use high efficiency particulate air (HEPA) filtered vacuum cleaning for removal, clean up and disposal of debris. Prohibit dry sweeping, shoveling, or other dry clean-up of asbestos-containing dust and debris at all times.

(5) Collect and dispose of asbestos waste, scrap, debris, bags, containers, equipment, and asbestos-contaminated clothing (consigned for disposal) which may produce, in any foreseeable way, airborne concentrations of asbestos fibers in sealed, impermeable bags, or other impermeable containers labeled per paragraph references 17-1, 17-2 and 17-3. Color code containers to ensure easy recognition. Double bag and dispose of asbestos waste per the procedures outlined in paragraph 1706.

(6) Control the spread or increase of airborne concentrations of asbestos by minimizing the effects of environmental conditions, such as wind, ventilation systems, or high traffic conditions. Enclosures or temporary curtains may be used for this purpose.

(7) To minimize exposure potential, perform asbestos removal operations, to the extent feasible, during the second or third shifts or on weekends and holidays.

(8) Strictly adhere to good house-keeping procedures and dust control measures to minimize the release of asbestos fibers during removal/ripout of ACM. These are the most important and effective means of reducing downtime before reoc-

cupying a workspace after asbestos abatement operations. Always conduct a visual inspection after clean-up. Thoroughly clean and inspect work areas prior to air sampling and releasing asbestos-controlled areas for unrestricted access per reference 17-6.

(9) A "Qualified" or "Competent" person, as defined in references 17-2 or 17-3, shall supervise all asbestos work performed in a regulated area.

b. Lunch areas. Provide and maintain lunch areas per references 17-1, 17-2 and 17-3 as applicable to the work being performed.

c. Ventilation. Use local exhaust ventilation to ensure that atmospheric levels of asbestos do not exceed the PEL. General requirements for the design and use of ventilation to reduce exposures are listed below.

(1) Local exhaust ventilation requirements below apply to both permanent and temporary systems.

(a) Provide fixed local exhaust ventilation, equipped with pre-filters and HEPA filters, at the point of airborne fiber generation. Capture velocities shall be high enough, under the specific environmental conditions, to move any generated asbestos fibers to the air collection/filtration device. In addition, duct transport velocities shall be high enough to prevent accumulation of fibers in the duct. Provide clean out points for necessary periodic maintenance. Do not directly exhaust ventilation systems used to control asbestos exposures or emissions, to another regulated area or outside environment unless the ventilation system has HEPA filters, and has been approved by the cognizant industrial hygienist (IH). Prohibit routine recirculation of filtered air from asbestos operations. Use the design criteria in

reference 17-7 for facilities with permanent asbestos operations.

(b) Design, construct, install and maintain local exhaust ventilation, and dust collection systems per references 17-7 and 17-8. Position local exhaust ventilation in a regulated area to move contaminated air away from the breathing zone of employees and toward a filtration or collection device equipped with a HEPA filter.

(c) Provide a HEPA-filtered local exhaust ventilation system for all hand-operated and power-operated tools which may release asbestos fibers in excess of the PEL.

(d) Maintain exhaust filtration systems to prevent performance degradation of the ventilation systems as a whole. Perform such maintenance work under the provisions of this chapter.

(e) Where negative pressure enclosures are required, maintain a minimum negative pressure of 0.02 inches water gauge within an enclosure. A minimum of four air changes per hour are required. Direct air movement, in a negative pressure enclosure (NPE), away from employees performing asbestos work within the enclosure, and toward a HEPA filtration or a collection device.

(2) The following requirements are applicable for permanent ventilation systems only:

(a) Test permanent ventilation systems every 3 months or within 5 days of a production process or control change that results in changes to employee exposure. Maintain test records indefinitely. Log the gauge readings each day the system is used where devices such as pressure taps, manometers, pitot tubes, etc. are used to continuously monitor the ventilation system. Also, note non-use days.

(b) Design the system for ease of maintenance and accessibility per references 17-7 and 17-8. Evaluate each system component including hoods, ductwork, clean-out hatches, exhaust fans and air pollution control devices (APCD). Locate the exhaust fan after the APCD. Locate the exhaust fan and APCD in a protected or restricted room. Treat this as a regulated area. Use bag-in bag-out housing on all filtration systems.

d. Personal Protective Clothing and Related Facilities

(1) Personnel handling ACM during abatement actions, or where the concentration of airborne fibers is likely to exceed the PEL, shall wear, as a minimum, the protective clothing listed below:

(a) Full body, one piece disposable coveralls (use of breathable coveralls is permitted in cases where employees will need to shower. An attached hood is highly desirable).

(b) Hoods (head covering) that extend beyond the collar of the coverall, completely protecting the neck area

(c) Medium weight rubber gloves and a thin cotton under-glove to absorb perspiration

(d) Slip-resistant plastic shoe covers, or heavy polyethylene shoe covers with slip-resistant soles, or light weight rubber boots;

(e) Face shields, vented goggles, or other appropriate protective equipment, whenever the possibility of eye irritation exists.

NOTE:

The proper use of protective clothing requires that all

openings be closed and that garments fit snugly about the neck, wrists, and ankles.

Accordingly, tape the wrist and ankle junctions, as well as the collar opening on the outer disposable coveralls to prevent contamination of skin and underclothing without restricting physical movement. Employees shall not wear personal clothing under the coveralls.

(2) Establish decontamination areas adjacent and connected to the regulated area, for Class I work (as defined in the glossary) involving more than 25 linear or 10 square feet of TSI or surfacing ACM or presumed asbestos containing material (PACM). Decontamination areas shall consist of an equipment room, shower area, and clean room in series. Use a remote shower and clean room where it is not feasible to locate the shower between the equipment room and the clean room, where the work is performed outdoors, or when the work takes place on board a ship. When using remote facilities, employees shall remove contamination from their worksuits with a HEPA vacuum and don clean suits in the equipment room. Employees shall then proceed to a remote shower and clean room to complete the decontamination process.

(3) Establish decontamination areas adjacent to the regulated area for Class I work involving less than 25 linear or 10 square feet of TSI or surfacing ACM or PACM and for Class II and Class III asbestos work operations where exposures exceed the PEL, or where no negative exposure assessment has been produced. The decontamination area shall consist of an equipment room or area that is covered by an impermeable drop cloth on the floor/deck or horizontal working surface. This area shall be of sufficient size that

equipment can be cleaned and personnel may remove their protective equipment without spreading contamination beyond the area. Employees shall proceed to a shower and clean room that may be remote from the regulated area.

(4) Activities shall launder asbestos-contaminated clothing to prevent release of airborne asbestos fibers in excess of the PEL. Contracts governing the laundering of asbestos-contaminated clothing shall specifically require that contractors comply with the precautions specified in references 17-1 through 17-3 as applicable. Contracts shall include specific notice of the asbestos-related hazards and require that the contractor notify his/her personnel of the associated hazards. Seal asbestos-contaminated clothing in impermeable bags and transport in containers that have the required warning labels.

e. Respiratory Protection

(1) General Guidance

(a) Employ engineering control measures and work practices to control and contain airborne asbestos fibers to the lowest feasible level. Do not achieve compliance with the PEL by employee rotation. Do not achieve compliance with the PEL by the use of respirators alone except under the following conditions:

1. During the time period necessary to commence engineering control measures

2. In work situations in which the feasible control methods are not sufficient to maintain the airborne concentration of asbestos fibers below the PEL

3. In work situations where engineering and workplace controls have been implemented, but no industrial hygiene monitoring data exists to verify that

such controls have reduced exposure levels below the PEL

4. During emergencies.

(b) Establish a respiratory protection program per chapter 15 of this manual.

(2) Types of Respirators Select only respirators approved for protection against exposure to asbestos by the National Institute for Occupational Safety and Health (NIOSH). Collect asbestos air sampling data under section 1709b to determine the level of respiratory protection per references 17-1, 17-2, and 17-3.

(a) Do not use disposable respirators for protection against airborne asbestos fibers. The minimum respirator shall be a half facepiece, air purifying respirator with high efficiency particulate air filter(s) (P100 filters).

(b) For 8-hour TWA exposures of up to 10 times the PEL, use a half facepiece air purifying respirator with high efficiency particulate air filter(s) (P100 filters) to reduce the concentration of respirable airborne asbestos fibers below the PEL. Use of this respirator for Class I work must comply with paragraph 1704e(3)(a)1.

(c) For 8-hour TWA exposures greater than 10 but not exceeding 50 times the PEL, use a full facepiece air purifying respirator with high efficiency particulate air filter(s) (P100 filters) to reduce the concentration of respirable airborne asbestos fibers in the respirator below the PEL. Use of this respirator for Class I work must comply with paragraph 1704e(3)(a)1. Refer to paragraph 1704f(2) for fit testing requirements.

NOTE:

Provide personnel with a tight fitting powered air purifying respirator in lieu of any negative pressure respirator if it is requested and provides adequate protection.

(d) For 8-hour TWA concentrations greater than 50, but not exceeding 100 times the PEL, use a tight fitting powered air purifying respirator equipped with high efficiency particulate air filter(s) or a supplied air respirator operated in a continuous flow mode to reduce the concentration of respirable airborne asbestos fibers in the respirator below the PEL. Use of this respirator for Class I work must comply with paragraph 1704e(3)(a)1.

(e) For 8-hour TWA concentrations of greater than 100, but not exceeding 1000 times the PEL, use a full facepiece supplied air respirator operated in a pressure demand mode to reduce the concentration of respirable airborne asbestos fibers in the respirator below the PEL. Use of this respirator for Class I work must comply with paragraph 1704e(3)(a)1.

(f) If the 8-hour TWA concentration exceeds 1000 times the PEL, or is unknown, use a full facepiece supplied air respirator operated in pressure demand mode equipped with an auxiliary positive pressure, self-contained breathing apparatus (SCBA) to reduce the concentration of respirable airborne asbestos fibers in the respirator below the PEL.

(3) Respirator Requirements

(a) In addition to selecting respirators per references 17-1, 17-2 and 17-3, wear respirators during the following:

1. All Class I asbestos work requires respirators. For all Class I work above 1 f/cc as an 8-hour TWA, use a full face, pressure-demand supplied air respirator equipped with either an auxiliary self-contained air supply or HEPA egress cartridges. For all Class I work between 0.1 and 1 f/cc as an 8-hour TWA, use a tight-fitting powered air-purifying respirator equipped with HEPA filters. For Class I work below 0.1 f/cc as an 8-hour TWA, use any respirator approved for asbestos.

2. Class II and III asbestos work usually requires a half-mask air purifying respirator, other than a disposable respirator, equipped with high efficiency particulate air filter(s) (P100 filters). Refer to appropriate sections in references 17-2 and 17-3 on roofing work.

3. Class IV workers shall wear the same respiratory protection as other workers in the regulated area.

(b) Employees who wear respirators may leave the regulated area to wash their faces and respirator face pieces whenever necessary to prevent skin irritation associated with respirator use.

(c) Do not assign personnel to tasks requiring the use of respirators if, based upon his/her most recent medical evaluation, it is determined that the employee will be unable to function normally while wearing a respirator or that the safety or health of the employee or other personnel will be impaired by his/her use of a respirator.

f. Respirator Fit Testing

(1) Per chapter 15, fit test all Navy personnel issued respirators, equipped with tightly fitting face pieces (including pressure demand respirators) for protection against airborne asbestos fibers in the negative pressure mode.

(2) Perform either quantitative or qualitative fit tests at the time of initial fitting and at least annually thereafter. Conduct fit testing per chapter 15. Qualitative fit testing is acceptable for both half mask and full face respirators worn as protection against asbestos concentrations that are less than 10 times the PEL.

g. Communication of Hazards

(1) Communicate asbestos hazards with warning signs and labels to all potentially exposed personnel as indicated in references 17-1, 17-2 and 17-3.

(2) The National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations also contain specific labeling requirements for waste disposal. Off-site disposal requires the name of the waste generator and location where the waste was generated, as specified in reference 17-9.

1705. Asbestos Clearance Level Criteria

The asbestos clearance level, as defined here, provides quality control following asbestos abatement operations. Perform all asbestos abatement operations with strict adherence to good housekeeping procedures and adequate control measures to minimize, to the greatest extent feasible, the release of asbestos fibers to the environment. All asbestos abatement projects shall undergo a thorough visual inspection. Thoroughly clean any visible dust or debris per reference 17-6. Clearance air sampling is required of all regulated areas for which a negative exposure assessment has not been made. As a minimum, perform air sampling as described below:

a. Sample the air inside the regulated area to determine if airborne fibers are less than 0.01 f/cc using the NIOSH 7400 method. The minimum sample volume is 1200 liters. Use aggressive air sampling

where required by law, to perform clearance air sampling. The necessary number of samples may vary significantly, and therefore, should be determined locally on a case-by-case basis. Criteria used to determine if the abatement project is considered complete are listed below for both buildings and ships:

(1) For buildings, the project is considered complete if all samples collected are less than 0.01 f/cc.

(2) For ships, the project is considered complete if samples collected are no greater than 0.01 f/cc or background, whichever is greater, as measured prior to starting the non-emergency asbestos abatement but never greater than 0.1 f/cc.

(b) Reference 17-10 and NIOSH 7400 method provides technical guidance for sampling and analysis.

(c) Personnel who are not IHs, industrial hygiene technicians, or certified exposure monitors, shall complete a formal course, per appendix 17-B, prior to performing asbestos sampling. In addition, on the job training (OJT) is required under the direction of the cognizant IH. The cognizant IH will certify, in writing, as competent, those individuals who successfully complete the OJT.

1706. Disposal Procedures

In preparation for disposal, adequately wet asbestos wastes prior to double bagging in heavy duty plastic bags (at least 6 mils thick) or other suitable impermeable containers (see section 1712 (Environmental Protection)). Mark all bags or containers with standard asbestos warning labels. Distinctively color code asbestos waste containers, such as bags, trash cans, dumpsters, etc., to ensure easy recognition. Label dumpsters ASBESTOS WASTE

ONLY or otherwise mark per paragraph 1704g. Exercise care to prevent bags and other containers from rupturing when being moved to a dumpster or other suitable vehicle for transport to a proper disposal site.

1707. Asbestos Management Program Ashore

The program objective is to provide a long term solution that will eliminate personnel exposure to airborne asbestos fibers in occupied Navy buildings and workspaces through cost effective management of ACM. The program contains three key elements:

- a. Survey and material evaluation
- b. Operations and maintenance (O&M) program
- c. Design and abatement. Centrally managed Hazard Abatement funds are available for design and abatement of high priority asbestos projects.

The asbestos program manager (APM) shall be appointed in writing by the activity commanding officer to implement the activity's Asbestos Management Program. The APM may be located in the public works department, safety and health department, or the environmental department. Smaller activities, with host-tenant relationships, may use the building manager or facilities representative to act as the liaison with the host, when a written agreement exists specifying that the host is responsible for carrying out the APM's duties. When such a written agreement exists, training requirements for the activity representative will be as mutually agreed. The protection of employees and program elements of appendix 17-C are thereby met. Appendix 17-C provides details of the program and division of responsibilities.

1708. Training

Follow training and certification requirements of appendix 17-B. Maintain training records per chapter 6. Make copies of references 17-1, 17-2 or 17-3 and other handout type training materials available to employees upon request at no charge.

1709. Industrial Hygiene Surveillance

a. Exposure Monitoring Plan. Establish a exposure monitoring plan to characterize exposures for every employee with occupational exposure to asbestos. In this regard, perform both personal (employee) air sampling and environmental (area) monitoring. Collect personal air samples in the breathing zone of the employee. Give the employee or designated employee representative the opportunity to observe sampling or monitoring. Within a class or category of similar operations, conduct sampling with a frequency and pattern to accurately and reproducibly represent the airborne levels produced by a typical operation within the class or category. Sampling, of all areas where repetitious asbestos work is performed, is at the discretion of the cognizant IH per references 17-1, 17-2, and 17-3. Sample each non-repetitious asbestos removal operation at least once to determine the maximum exposure potential of that operation. Personnel performing personal air sampling to determine exposure to airborne asbestos, who are not IH's, industrial hygiene technicians, or certified exposure monitors, shall complete a formal course in asbestos sampling per appendix 17-B. In addition, on the job training is required under the direction of the cognizant IH. The cognizant IH will certify in writing as competent those individuals who successfully complete the OJT.

b. Method of Sampling. Collect breathing zone air samples, which are representative of the 8-hour TWA exposure of

each employee for comparison to the PEL, and breathing zone air samples, which are representative of the 30-minute short term exposure for comparison to the EL, per appendix A of references 17-1, 17-2 and 17-3. Collect environmental air samples using the current revision of the NIOSH 7400 method along with any additional guidance from local requirements. The Industrial Hygiene Field Operations Manual provides additional information on sampling (reference 17-10).

c. Method of Measurement. Analyze asbestos air samples using personnel who have successfully completed the NIOSH 582 or an equivalent course. Perform analysis of samples by the appropriate method, ORM or NIOSH, and specify the laboratory results. .

d. Monitoring Records and Retention. Complete documentation on the Industrial Hygiene Air Sampling Survey form (NEHC 5100/13) or computerized equivalent. Record and retain exposure data as indicated in Chapter 8.

1710. Asbestos Medical Surveillance Program (AMSP)

a. General. The AMSP is designed to identify signs and symptoms of asbestos related medical conditions as early as possible through periodic medical evaluations. The program also provides for identification of medical conditions which may increase the employee's risk of impairment from asbestos exposure and for counseling of workers on medical conditions related to asbestos exposure.

b. Criteria for Inclusion of Personnel in the AMSP. Include personnel who meet the exposure criteria defined in references 17-1, 17-2, and 17-3 in the AMSP. These persons must remain in the program for the duration of current exposure. Civil service

employees may be required to complete medical examinations related to asbestos exposure per reference 17-11.

c. Criteria for Removal of Personnel from the AMSP

(1) Give an employee in the AMSP who changes to a job either without asbestos exposure, or at a level below the current exposure criteria, a termination evaluation to meet requirements per references 17-1, 17-2, and 17-3. The Chief, Bureau of Medicine and Surgery (BUMED) has a program for persons previously in the AMSP, or with significant past exposure, to continue receiving medical evaluations on a voluntary basis. The details of this program are contained in references 17-12 and 17-13.

(2) When an employee enrolled in the AMSP is being removed from the potential exposure assignment, and has never met the exposure criteria in references 17-1, 17-2, and 17-3, termination evaluation is not required (for example, persons assigned to work on asbestos removal teams who have not been exposed at or above the current exposure levels). Document the health record (HR) when the employee is removed from the AMSP, and forward the employee's name and social security number to Navy Environmental Health Center (NAVENVIR-HLTHCEN) stating the employee never met the applicable exposure criteria.

(3) When an employee has been inappropriately enrolled in the AMSP, accomplish administrative removal only by the responsible occupational health care professional (with occupational medical physician consultation as needed). Remove an employee from the program if review of the records indicate the employee did not meet the OSHA criteria for inclusion in the program, and there is no medical evidence (based on AMSP medical parameters) to

warrant inclusion in the AMSP. Clearly document the HR with the reason(s) for removal, and forward the employee's name and social security number to NAVENVIRHLTHCEN stating the employee should not have been placed in the AMSP.

(4) Provide information and counseling on the value of continuing medical evaluations to employees upon termination of employment.

(a) Upon termination of Navy employment, civilian personnel are no longer eligible for health care in Navy clinics and cannot be followed up in the Navy AMSP. Encourage employees to obtain a copy of their health record for follow-up with their private physician.

(b) Retired military personnel may continue to be seen in Navy clinics for AMSP evaluations, subject to the conditions listed in reference 17-14. Guidelines and protocols for entry in the AMSP based on past exposure are found in references 17-12 and 17-13.

d. Medical Personnel Performing Medical Surveillance Evaluations. Perform medical evaluations by, or under the supervision of a credentialed physician. Nurse practitioners, physician assistants, independent duty corpsmen and occupational health nurses authorized to provide health assessments under the BUMED Quality Assessment and Improvement Program may provide AMSP medical evaluations using approved medical protocols. The health care provider shall have a copy of this chapter, including references 17-1, 17-2, and 17-3.

e. Situational Medical Evaluations. Conduct situational evaluations in response to a specific incident for which a hazardous overexposure is suspected. Personnel are not enrolled in the AMSP on the basis of a one-time exposure to asbestos or a one-

time medical evaluation for actual or potential asbestos exposure unless the criteria per references 17-1, 17-2, and 17-3 are met. When exposure does not meet the criteria for enrollment in the AMSP, use AMSP HR forms to document situational evaluations for asbestos exposures, and mark the outside of the HR ASBESTOS per reference 17-15. Do not forward AMSP forms to NAVENVIRHLTHCEN unless the employee is placed in the AMSP.

f. Content of Medical Evaluation. Reference 17-12 contains the medical protocols for the AMSP employees in compliance per references 17-1, 17-2, and 17-3.

(1) Physical Evaluation. Reference 17-13 lists the forms required for documenting the review and update of medical and occupational history and evaluation.

(2) Pulmonary Function Test. Follow the spirometry testing requirements found in reference 17-13.

(3) Chest X-ray. The local radiologist shall read the posterior/anterior chest X-ray required per references 17-1, 17-2, and 17-3, and follow procedures in reference 17-13. This must be forwarded for a reading using the International Labor Organization (ILO) 1980 Classification for Pneumoconioses (generally known as B readings).

(4) Medical Evaluation Counseling. Counsel all personnel on the AMSP regarding the results of the medical evaluation. Complete and distribute A Physician's Written Opinion per references 17-1, 17-2, and 17-3. Include information from the local radiologist's official interpretation of the chest X-ray as part of the medical evaluation; if the B reading results received subsequently provide new information, inform the employee of those findings.

g. Documentation of Medical Evaluations. Document AMSP medical data in the HR and maintain the data in accordance with reference 17-16. Prominently mark the exterior of the HR and x-ray jackets ASBESTOS as described in reference 17-15.

h. Medical Records Including Chest X-rays. Reference 17-17 requires all medical information collected for occupational health purposes, including all AMSP medical data, to be maintained in the HR.

(1) Transfer, Retention and Retirement of Health Records. Forward HRs, per reference 17-15, when the active duty member or civilian employee transfers to another location or retires. Original chest x-rays are a permanent part of the HR and the medical clinic shall maintain them, per references 17-1, 17-2, and 17-3. If the civilian transfers to an agency outside the Navy, the Navy medical clinic shall maintain the chest films and retire them per current directives.

(2) Access to Medical Data. Refer to chapter 8 along with references 17-15 and 17-18 to implement the federal regulations relating to the access and privacy of medical data.

(3) Central Asbestos Medical Surveillance Program Registry. The Navy's mechanism for reporting occupational diseases is via the safety chain of command to the Naval Safety Center. The Navy Environmental Health Center (NAVENVIRHLTHCEN) maintains a central database registry containing selected information related to persons in the Asbestos Medical Surveillance Program. This is used to track the number of persons routinely being evaluated for potential asbestos-related disease and health record information related to asbestos medical evaluations for program management purposes.

1711. Work Performed by Private Contractors

For shore activities, each contract for work to be performed by a private contractor in Navy facilities and ships in the United States and abroad shall comply with appropriate OSHA and EPA regulations. Use reference 17-19 to design asbestos actions in Navy facilities. Invoke reference 17-20 in contracts for the control of asbestos operations on board Navy ships undergoing construction and/or repair.

1712. Environmental Protection

a. General

(1) All Federal, State and local requirements, including emission standards and the provisions of this chapter shall be met. For additional information, contact the cognizant IH and the activity environmental coordinator.

(2) Technical assistance for air pollution control is available upon request from the COMNAVFACENGCOM Engineering Field Divisions (EFDs).

b. Properly contain and dispose of asbestos materials in an approved landfill.

NOTE:

Some states may require asbestos materials to be disposed of in specially designated landfills. Consult with the activity environmental coordinator prior to any disposal. Where State or local agencies regulate asbestos as a hazardous waste (HW), the Navy may be responsible for the management of all administrative and disposal requirements

as the generator of the waste. The landfill operator will record specific locations within landfills used for the disposal of asbestos materials and the cognizant naval facility will retain a copy per reference 17-1, 17-2, 17-3 and 17-9. This practice should reduce the possibility of future unearthing and rupturing of disposal containers.

c. Application of National Emission Standards for Asbestos

(1) The National Emission Standards for Asbestos are contained in references 17-9 and 17-21. The standards include:

(a) Demolition and renovation of ACM in facilities and ships. Prior to renovation or demolition of facilities, conduct a thorough reinspection for ACM by an asbestos inspector qualified per appendix 17-B.

(b) Spray application of materials containing one percent or more asbestos is prohibited for buildings, structural members, pipes, and conduits.

(c) Fabrication, installation, and disposal of waste asbestos. Specific requirements shall be met for these processes. Procedures for the handling, transporting, and disposing of asbestos waste are prescribed in the standards (reference 17-1, 17-2, and 17-3). Wet down waste asbestos or asbestos-contaminated material and place in impermeable containers prior to transporting for disposal. Label the containers as prescribed in this chapter. In addition, label transport vehicles during loading and unloading in conformance to reference 17-9.

(2) The activity shall ensure that written notification to the EPA and/or cognizant state or local agencies is done per reference 17-9 and State and local regulations. Guidance on notification requirements is found in appendix 17-D.

1713. Responsibilities

The following responsibilities are assigned to provide an effective asbestos exposure control program throughout the Navy.

a. Echelon 2 Commands shall:

(1) Ensure that asbestos containing materials are not procured or specified when a suitable substitute exists per paragraph 1702 b.

(2) Review and purge current military specifications, technical manuals, contract guide specifications, and any other document or specification under Navy cognizance of requirements for asbestos-containing materials where suitable non-asbestos substitutes exist.

(3) Provide advice and technical assistance, in coordination with BUMED, to define appropriate engineering and work practice controls, and identify acceptable non-asbestos-containing substitute materials.

(4) Ensure program support by providing the resources required to meet the regulatory standards for the control of asbestos as prescribed by this chapter.

b. The Chief, Bureau of Medicine and Surgery (BUMED) shall:

(1) Centrally manage the AMSP.

(2) Provide professional, technical, and training assistance to commands for the purpose of evaluating the potential for asbestos exposure.

(3) Manage the asbestos fiber counting and identification program, including laboratory quality control.

(4) Establish the AMSP Medical Surveillance Program Control Database and provide data analysis and trend analysis to CNO (N45) at least semiannually.

c. The Commander, Naval Facilities Engineering Command shall:

(1) Provide technical oversight of the facility Asbestos Management Program Ashore.

(2) Maintain guide specifications in accordance with current regulations.

d. The Commander, Naval Sea Systems Command shall maintain reference 17-20 in accordance with current regulations.

e. Commanding officers of shore activities shall:

(1) Apply control measures, monitoring procedures, operations and maintenance (O&M) plans prescribed in this chapter, to processes using asbestos or ACMs.

(2) Comply with the National Emission Standard for Asbestos per Section 1712.

(3) Budget resources in order to meet these asbestos control requirements.

(4) Appoint an APM, in writing, to implement the requirements of section 1707 and appendix 17-C.

(5) Maintain a current copy of applicable State and local asbestos requirements.

Chapter 17

References

17-1. Title 29 Code of Federal Regulations (CFR) section 1910.1001, OSHA Asbestos Standard, latest revision, (NOTAL)

17-2. Title 29 Code of Federal Regulations (CFR) section 1926.1101, OSHA Asbestos Construction Standard, latest revision, (NOTAL)

17-3. Title 29 Code of Federal Regulations (CFR) section 1915.1001, Asbestos Exposure in all Shipyard Employment Work, latest revision, (NOTAL)

17-4. OPNAVINST 5100.19C of 14 Jan 94, Navy Occupational Safety and Health (NAVOSH) Program Manual for Forces Afloat (NOTAL)

17-5. Title 40 Code of Federal Regulations (CFR) 763 Chapter I-EPA Appendix C Subpart E, Asbestos Model Accreditation Plan, latest revision

17-6. American Society for Testing and Materials (ASTM) Standard Practices for Visual Inspection of Asbestos Abatement Projects (E1368-90).

17-7. American Conference of Governmental Industrial Hygienists, Inc., Committee on Industrial Ventilation, Industrial Ventilation A Manual of Recommended Practice (NOTAL)

17-8. American National Standards Institute, American National Standard, Fundamentals Governing the Design and Operation of Local Exhaust Systems, ANSI Z9.2-1979 (NOTAL)

17-9. Title 40 Code of Federal Regulations (CFR) Part 61 of July 1997, Subpart M, (NOTAL)

17-10. NEHC Technical Manual, Industrial Hygiene Field Operations Manual, latest revision.

17-11. Title 5 Code of Federal Regulations (CFR) 339.205 and 339.301, Medical Qualification Determination, (NOTAL)

17-12. NEHC Technical Manual, Medical Surveillance Procedures Manual and Medical Matrix, latest revision.

17-13. NEHC Technical Manual, Occupational Medicine Field Operations Manual, latest revision.

17-14. NAVMEDCOM 6320.3B Medical and Dental Care for Eligible Persons at Navy Medical Department Facilities.

17-15. NAVMED Publication P-117, Manual of the Medical Department (NOTAL)

17-16. SECNAVINST 5212.5 (Series)

17-17. Title 29 Code of Federal Regulations (CFR) 1910.1020 Subpart Z, Access to Employee Exposure and Medical Records, (NOTAL)

17-18. SECNAVINST 5211.5D of 17 July 92, Department of the Navy Privacy Act (PA) Program

17-19. Naval Facilities Engineering Command Guide Specifications (NFGS) -13281

17-20. NAVSEA STANDARD ITEM NO 009-10 of 2 July 1993, Control of Shipboard Asbestos Containing Material (ACM)

17-21. 42 U.S.C. Section 7401 et seq. of Nov 25 1990 (PL 101-549), Clean Air Act, (NOTAL)

Appendix 17-A
Determining Applicability of State and Local Requirements
on Asbestos Removal and Disposal

<u>Asbestos Workers</u>	<u>Federal OSHA</u>	<u>State/Local OSHA</u>	<u>Federal CAA</u>	<u>State/Local CAA</u>
Federal (On Base)				
Removal	Yes ²	No	Yes	Yes
Disposal	Yes ²	No	Yes	Yes
Federal (Off Base)				
Removal	Yes ²	No	Yes	Yes
Disposal	Yes ²	No	Yes	Yes
Contractor (On Base)				
Removal	Yes	No	Yes	Yes
		(Exclusive Juris)		
		Yes	Yes	Yes
		(Concurrent Juris)		
Disposal	Yes	No	Yes	Yes
		(Exclusive Juris)		
		Yes	Yes	Yes
		(Concurrent Juris)		
Contractor (Off Base)				
Removal	Yes	Yes	Yes	Yes
Disposal	Yes	Yes	Yes	Yes

OSHA - Occupational Safety and Health Administration

CAA - Clean Air Act

¹ Material in this appendix was provided by the Navy Office of General Counsel

² under E.O.12196

Appendix 17-B

ASBESTOS TRAINING AND CERTIFICATION REQUIREMENTS LISTED BY TYPE OF OPERATION

TYPE OPERATION	TYPE PERSONNEL	TYPE ACCREDITATION REQUIRED *	INITIAL TRAINING REQUIREMENT	ANNUAL RECERT OR REFRESH R & LENGTH	REGULATORY CITATION
DESIGN OF PROJECTS WHICH INVOLVE REMOVAL OF ACM OR WORK IN PROXIMITY OF ACM/PACM	ARCHITECTS, ENGINEERS, PLANNERS, ESTIMATORS (P&Es) & APMs	ABATEMENT PROJECT DESIGNER	3-DAY ABATEMENT PROJECT DESIGNER COURSE	YES 1 DAY	** 40 CFR 763.92
REVIEW OF PROJECTS TO DETERMINE ADEQUACY OF CONTROL	ENGINEERS, INDUSTRIAL HYGIENISTS, SAFETY PERSONNEL & APMs	ABATEMENT PROJECT DESIGNER	3-DAY ABATEMENT PROJECT DESIGNER COURSE	YES 1 DAY	** 40 CFR 763.92
PERSON RESPONSIBLE FOR ASBESTOS REMOVAL, ENCAPSULATION, ENCLOSURE AND/OR REPAIR (CLASS I AND II ASBESTOS WORK)	ASBESTOS ABATEMENT SUPERVISOR OR COMPETENT PERSON, QUALIFIED PERSON, ROICC PERSONNEL	ASBESTOS ABATEMENT CONTRACTOR/ SUPERVISOR	5-DAY ASBESTOS ABATEMENT CONTRACTOR/ SUPERVISOR TRAINING COURSE	YES 1 DAY	29 CFR 1915.1001(o)(4)(i) 29 CFR 1926.1101(o)(4)(i) ** 40 CFR 763.92 40 CFR 61 Subpart M
PERSON RESPONSIBLE FOR MAINTENANCE AND HOUSEKEEPING (CLASS III AND IV ASBESTOS WORK)	MAINTENANCE AND HOUSEKEEPING SUPERVISORS, COMPETENT, QUALIFIED PERSON	NONE	2-DAY OPERATIONS AND MAINTENANCE TRAINING	YES NOT SPECIFIED	29 CFR 1915.1001(o)(4)(ii) 29 CFR 1926.1101(o)(4)(ii)
PHYSICAL GATHERING OF SUSPECTED ACM/PACM SAMPLES FOR LAB I.D.	SAFETY PERSONNEL INDUSTRIAL HYGIENIST, P&Es, & FACILITY INSPECTORS	ASBESTOS INSPECTOR	3-DAY ASBESTOS INSPECTOR COURSE	YES 1 DAY	29 CFR 1915.1001(k)(5) 29 CFR 1926.1101(k)(5) ** 40 CFR 763.92
DEVELOPMENT OF ASBESTOS MANAGEMENT PLANS & ASBESTOS O&M PLANS	FACILITY INSPECTORS, SAFETY PERSONNEL & IHS	ASBESTOS MANAGEMENT PLANNER	2-DAY ASBESTOS MANAGEMENT PLANNER COURSE (INSPECTOR ACCREDITATION REQUIRED AS PREREQUISITE)	YES 1 DAY	** 40 CFR 763.92
LABORATORY ANALYSIS OF	INDUSTRIAL HYGIENE,	PROFICIENCY ANALYTICAL	5-DAY NIOSH 582 COURSE OR	ES	29 CFR 1910.1001 APP. A 29 CFR 1915.1001 APP. A

* A LIST OF ACCREDITED TRAINING SOURCES MAY BE OBTAINED FROM EPA-AHERA-NDAAC, C/O VISTA COMPUTER SERVICES SUITE 304, 6430 ROCKLEDGE DRIVE, BETHESDA, MD 20817. **1-800-462-6706**

** APPLIES TO PUBLIC AND COMMERCIAL BUILDINGS

Appendix 17-B
Enclosure (1)

OPNAVINST 5100.23E
15 January 1999

TYPE OPERATION	TYPE PERSONNEL	TYPE ACCREDITATION REQUIRED *	INITIAL TRAINING REQUIREMENT	ANNUAL RECERT OR REFRESHER & LENGTH	REGULATORY CITATION
AIRBORNE SAMPLE	SAFETY PERSONNEL	TESTING (PAT) ROUNDS	EQUIVALENT	(PAT)	29 CFR 1926.1101 APP. A
PERSONNEL WHO ENGAGE IN CLASS I WORK	ABATEMENT WORKERS	ASBESTOS ABATEMENT WORKERS	4-DAY ASBESTOS ABATEMENT WORKER COURSE; OR 5 DAY ASBESTOS ABATEMENT CONTRACTOR/ SUPERVISOR TRAINING COURSE.	YES 1 DAY	29 CFR 1915.1001(k)(9) 29 CFR 1926.1101(k)(9) ** 40 CFR 763.92
PERSONNEL WHO ENGAGE IN CLASS II WORK ONLY	ABATEMENT WORKERS	NONE	8-HOUR ASBESTOS TRAINING. REQUIREMENTS ARE RELAXED WHEN ONLY ONE GENERIC CATEGORY OF BUILDING MATERIAL IN CLASS II WORK IS DONE.	YES NOT SPECIFIED	29 CFR 1915.1001(k)(9) 29 CFR 1926.1101(k)(9)
PERSONNEL WHO ENGAGE IN CLASS III OPERATIONS ONLY	MAINTENANCE WORKERS	NONE	16-HOUR OPERATIONS & MAINTENANCE. REQUIREMENTS ARE RELAXED WHEN ONLY ONE GENERIC CATEGORY OF BUILDING MATERIAL IN CLASS III WORK IS DONE.	YES NOT SPECIFIED	29 CFR 1915.1001(k)(9) 29 CFR 1926.1101(k)(9)
PERSONNEL WHO ENGAGE IN CLASS IV OPERATIONS ONLY AND HOUSEKEEPING WHERE ACM OR PACM IS PRESENT	MAINTENANCE & CUSTODIAL WORKERS	NONE	2-HOUR ASBESTOS AWARENESS TRAINING	YES 2 HOURS	29 CFR 1910.1001 (j)(7) 29 CFR 1915.1001(k)(9) 29 CFR 1926.1101(k)(9)
RESPONSIBLE FOR OVERALL ASBESTOS PROGRAM	ACTIVITY ASBESTOS PROGRAM MANAGERS	LETTER OF APPOINTMENT FROM COMMANDING OFFICER	3-DAY ABATEMENT PROJECT DESIGNER COURSE AND 2 DAY ASBESTOS INSPECTOR/ MANAGEMENT PLANNER COURSE, NFESC ASBESTOS PROGRAM MANAGER COURSE (INSPECTOR ACCREDITATION REQUIRED AS PREREQUISITE)	YES 1 DAY	RECOMMENDED TRAINING
AIR SAMPLING	ASBESTOS	NONE	2 DAYS AND ON THE	NONE	RECOMMENDED TRAINING

* A LIST OF ACCREDITED TRAINING SOURCES MAY BE OBTAINED FROM EPA-AHERA-NDAAC, C/O VISTA COMPUTER SERVICES SUITE 304, 6430

ROCKLEDGE DRIVE, BETHESDA, MD 20817. 1-800-462-6706

** APPLIES TO PUBLIC AND COMMERCIAL BUILDINGS

TYPE OPERATION	TYPE PERSONNEL	TYPE ACCREDITATION REQUIRED *	INITIAL TRAINING REQUIREMENT	ANNUAL RECERT OR REFRESHER & LENGTH	REGULATORY CITATION
	WORKPLACE MONITORS AND CLEARANCE SAMPLERS		JOB TRAINING		
AUTOMOTIVE BRAKE AND CLUTCH	AUTO MECHANICS	NONE	2-HOUR AWARENESS PLUS HANDS-ON TRAINING	NONE	29 CFR 1910.1001(j)(7) 29 CFR 1915.1001 APP. L
GENERAL INDUSTRIES OPERATIONS ABOVE PEL (NOT OTHERWISE CLASSIFIED)	VARIOUS	NONE	2-HOUR AWARENESS AND OPERATION SPECIFIC	YES NOT SPECIFIED	29 CFR 1910.1001(j)(7)

17-B-3

Appendix 17-B
Enclosure (1)

* A LIST OF ACCREDITED TRAINING SOURCES MAY BE OBTAINED FROM EPA-AHERA-NDAAC, C/O VISTA COMPUTER SERVICES SUITE 304, 6430 ROCKLEDGE DRIVE, BETHESDA, MD 20817. **1-800-462-6706**
 ** APPLIES TO PUBLIC AND COMMERCIAL BUILDINGS

OPNAVINST 5100.23E
15 January 1999

Appendix 17-C

Asbestos Management Program Ashore

The Navy Asbestos Management Program Ashore consists of the following three elements: operations and maintenance (O&M) program, survey and material assessment, and design and abatement. These elements are the key components of an activity's asbestos program to protect personnel from asbestos exposure. The cornerstone of the program is the O&M program. The first step in the process is to designate an asbestos program manager (APM) per paragraph 1707. The APM is responsible for overseeing all aspects of the asbestos management program.

1. Operations and Maintenance Program

a. Objective. Ensure that personnel are properly trained and protected from asbestos exposure caused by inadvertent disturbance of asbestos-containing material (ACM). Provide a living document to manage and record all asbestos-related actions.

b. Scope. The O&M program provides the framework for an activity to manage and document all asbestos actions. An active and aggressive O&M program protects personnel by ensuring that any ACM or presumed asbestos containing material (PACM) is tested before maintenance or repair operation disturbs it, and that proper work practices are employed whenever ACM is disturbed. An O&M program includes: notification, work requests and controls, inventory and periodic surveillance, work practices, recordkeeping, training, and worker protection. The APM will incorporate elements of the O&M program into the activity's existing work request and control system to the greatest extent possible. Additionally, the APM will

ensure the examining physician possesses the information required by references 17-1, 17-2 and 17-3. Guidance for developing an O&M program is given in Naval Facilities Engineering Service Center (NFESC) 70.2-010.1, "Model Operations and Maintenance Program for Buildings Containing Asbestos" and the National Institute of Building Sciences (NIBS), "Guidance Manual: Asbestos Operations & Maintenance Work Practices. Include each building with ACM in the O&M program until no ACM remains.

c. Responsibility. Activity.

d. Method. APM, COMNAV-FACENCOM Engineering Field Divisions (EFD), Public Works Center (PWC), other Navy sources, or contract.

e. Funding Source. Activity.

f. Support. EFDs will maintain open-ended reimbursable contracts for developing O&M plans, or assist with tailoring NFESC generic O&M plan to meet activity requirements.

2. Survey and Material Assessment

a. Objective. Locate, identify, and assess the condition of all types of ACM and PACM in shore facilities. Provide a record of survey results to determine the degree of hazard. A survey is extremely helpful in carrying out an asbestos O&M plan; however, the inventory can be developed, building by building, as needed, under the O&M program. If materials are not sampled, presume all suspect material contains asbestos until laboratory analysis proves otherwise.

Appendix 17-C

Enclosure (1)

b. Scope. Inspect facilities to identify, locate, and assess the condition of all suspect friable and non-friable ACM. Inspectors will be trained by an EPA or State accredited asbestos building inspectors course. Assess the condition of the material to identify potential hazards and prioritize abatement actions. As a minimum, take identification samples of damaged and significantly damaged homogeneous areas. Guidance for survey and material assessment is defined in NFESC 70.2-010, "Asbestos Facility Inventory/Assessment Protocol." Prepare NAVOSH Deficiency Abatement Program/ Management Information System (DAP/ MIS), form NEESA 3900/12, project formats, with cost estimates outlining recommended abatement actions for damaged and significantly damaged materials, per chapter 12 of this manual.

c. Responsibility. Activity.

d. Methods. In-house, PWC, other Navy sources, or contract. Forward DAP/ MIS project formats to the EFDs, via chain of command outlined in NAVFAC-INST 5100.14A (NOTAL), for entry into the hazard abatement database.

e. Funding Source. Major claimant or activity.

f. Support. COMNAVFACENGCOM EFDs will maintain open-ended reimbursable contracts for conducting surveys and material assessments.

3. Design and Abatement

a. Objective. Develop and execute plans and specifications for hazard abatement projects to eliminate hazardous conditions caused by damaged or significantly damaged ACM. If ACM is removed, replace

with asbestos-free materials, if available.

b. Scope. Develop abatement projects to remove, encapsulate, or enclose damaged or significantly damaged ACM. Project designers and contractors will be trained by an EPA or State-accredited asbestos project designer course. The projects will abate hazards, ensure worker and building occupant protection, and include proper procedures for final inspection, acceptance, and asbestos waste disposal.

c. Responsibility. Activity.

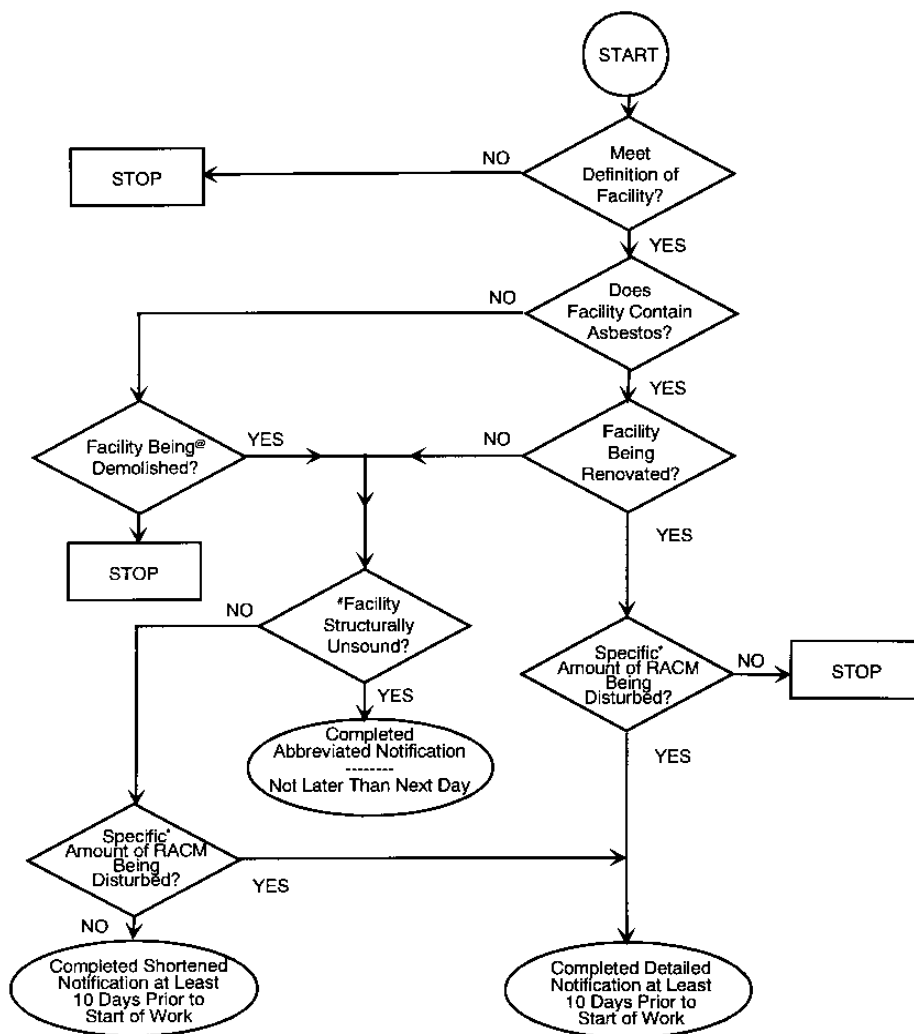
d. Method. In-house, PWC, other Navy sources, or contract.

e. Funding Source. COMNAVFAC-ENGCOM centrally managed hazard abatement account, major claimant, and activity.

f. Support. COMNAVFACENGCOM EFDs will maintain open ended reimbursable contracts for developing hazard abatement projects.

Appendix 17-D
17-Information from NESHAP Asbestos Regulations
(40CFR61, Nov 1990)

Decision Logic to Determine Notification Requirements



* Specific - At least 260 ft, 160 ft², or 35 ft³ of RACM

Under Order of State or Local Government Agency Because Facility Is Unsafe or in Danger of Imminent Collapse

@ The term "demolished" means the wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations or the intentional burning of any facility.

For further information, consult the following in 40 CFR61:

Detailed Notification: Paragraph 61.145

Shortened Notification: Paragraphs 61.145(b)(1), (2), (3)(i) and (iv), and (4)(i) through (vii) and (4)(ix) and (4)(xvi).

Abbreviated Notification: Paragraphs 61.145 (b)(1), (2), (3)(iii), (4) (except (viii)), (5), and (c)(4) through (c)(9).

SAMPLE NOTIFICATION OF DEMOLITION AND RENOVATION

Operator Project #	Postmark	Date Received	Notification #	
I. TYPE OF NOTIFICATION (O - Original R - Revised C - Canceled):				
II. FACILITY INFORMATION (Identify owner, removal contractor, and other operator)				
OWNER NAME:				
Address:				
City:	State:	Zip:		
Contact:			Tel:	
REMOVAL CONTRACTOR:				
Address:				
City:	State:	Zip:		
Contact:			Tel:	
OTHER OPERATOR:				
Address:				
City:	State:	Zip:		
Contact:			Tel:	
III. TYPE OF OPERATION (D - Demo O - Ordered Demo R - Renovation E - Emerg Renovation):				
IV. IS ASBESTOS PRESENT? (Yes/No):				
V. FACILITY DESCRIPTION (Include building name, number, and floor or room number)				
Bldg. Name:				
Address:				
City:	State:	County:		
Site Location:				
Building Size	# of Floors:	Age in Years:		
Present Use:	Prior Use:			
VI. PROCEDURE, INCLUDING ANALYTICAL METHOD, IF APPROPRIATE, USED TO DETECT THE PRESENCE OF ASBESTOS MATERIAL:				
VII. APPROXIMATE AMOUNT OF ASBESTOS, INCLUDING: 1. Regulated ACM to be removed 2. Category I ACM Not Removed 3. Category II ACM Not Removed	RACM to be removed	Nonfriable Asbestos Material Not to be Removed		Indicate Unit of Measurement Below
		Cat I	Cat II	UNIT
Pipes				LnFt: Ln m:
Surface Area				SqFt: Sq m:
Vol RACM Off Facility Component				CuFt: Cum:
VIII. SCHEDULED DATES ASBESTOS REMOVAL (MM/DD/YY) Start: Complete:				
IX. SCHEDULED DATES DEMO/RENOVATION (MM/DD/YY) Start: Complete:				

NOTE: States may require the use of state modified forms in place of the forms provided in this Appendix.

SAMPLE NOTIFICATION OF DEMOLITION AND RENOVATION (Cont'd)

X. DESCRIPTION OF PLANNED DEMOLITION OR RENOVATION WORK, AND METHOD(S) TO BE USED:		
XI. DESCRIPTION OF WORK PRACTICES AND ENGINEERING CONTROLS TO BE USED TO PREVENT EMISSIONS OF ASBESTOS AT THE DEMOLITION AND RENOVATIONS SITE:		
XII. WASTE TRANSPORTER #1		
Name:		
City:	State:	Zip:
Contact Person:		Telephone:
WASTE TRANSPORTER #2		
Name:		
Address:	State:	Zip:
Contact:		Telephone:
XIII. WASTE DISPOSAL SITE		
Name:		
Location:		
City:	State:	Zip:
Telephone:		
XIV. IF DEMOLITION ORDERED BY A GOVERNMENT AGENCY, PLEASE IDENTIFY THE AGENCY BELOW:		
Name:	Title:	
Authority:		
Date of Order (MM/DD/YY):	Date Ordered to Begin (MM/DD/YY):	
XV. FOR EMERGENCY RENOVATIONS		
Date and Hour of Emergency (MM/DD/YY):		
Description of the Sudden, Unexpected Event:		
Explanation of how the event caused unsafe conditions or would cause equipment damage or an unreasonable financial burden:		
XVI. DESCRIPTION OF PROCEDURES TO BE FOLLOWED IN THE EVENT THAT UNEXPECTED ASBESTOS IS FOUND OR PREVIOUSLY NONFRIABLE ASBESTOS MATERIAL BECOMES CRUMBLED, PULVERIZED, OR REDUCED TO POWDERED.		
XVI. I CERTIFY THAT AN INDIVIDUAL TRAINED IN THE PROVISIONS OF THIS REGULATION (40 CFR PART 61, SUBPART M) WILL BE ON-SITE DURING THE DEMOLITION OR RENOVATION AND EVIDENCE THAT THE REQUIRED TRAINING HAS BEEN ACCOMPLISHED BY THIS PERSON WILL BE AVAILABLE FOR INSPECTION DURING NORMAL BUSINESS HOURS. (Required 1 year after promulgation)		
_____ (Signature of Owner/Operator)		_____ (Date)
XVII. I CERTIFY THAT THE ABOVE INFORMATION IS CORRECT.		
_____ (Signature of Owner/Operator)		_____ (Date)

SAMPLE RECORD OF VISIBLE EMISSION MONITORING

Date of inspection (mo/day/yr)	Time of inspection (a.m./p.m.)	Air cleaning device or fugitive source designation or number	Visible emissions observed (yes/no), corrective action taken	Daily operating hours	Inspector's initials

SAMPLE AIR CLEANING DEVICE INSPECTION CHECKLIST

1. Air cleaning device designation or number	_____			
2. Date of inspection	_____	_____	_____	_____
3. Time of inspection	_____	_____	_____	_____
4. Is air cleaning device operating properly? (Yes/No)	_____	_____	_____	_____
5. Tears, holes, or abrasions in fabric filter? (Yes/No)	_____	_____	_____	_____
6. Dust on clean side of fabric filters? (Yes/No)	_____	_____	_____	_____
7. Other signs of malfunctions or potential malfunctions? (Yes/No)	_____	_____	_____	_____
8. Describe other malfunctions or signs of potential malfunctions	_____			

9. Describe corrective actions taken.	_____			

10. Date and time corrective action taken	_____	_____	_____	_____
11. Inspected by				
_____	_____	_____	_____	
(Print/Type Name)	(Title)	(Signature)	(Date)	
_____	_____	_____	_____	
(Print/Type Name)	(Title)	(Signature)	(Date)	

SAMPLE WASTE SHIPMENT RECORD

Generators	1. Work site name and mailing address		Owner's Name		Owner's telephone no.	
	2. Operator's name and address				Operator's telephone no.	
	3. Waste disposal site (WDS) name, mailing address, and physical site location				WDS phone no.	
	4. Name and address of responsible agency					
	5. Description of materials		6. Containers No. Type		7. Total quantity m ³ (yd ³)	
	8. Special handling instructions and additional information					
	9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.					
Printed/typed name and title		Signature		Month Day Year		
Transporter	10. Transporter 1. (Acknowledgement of receipt of materials)					
	Printed/typed name and title		Signature		Month Day Year	
	Address and telephone no.					
	11. Transporter 2. (Acknowledgement of receipt of materials)					
Printed/typed name and title		Signature		Month Day Year		
Address and telephone no.						
Disposal Site	12. Discrepancy indication space					
	13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.					
	Printed/typed name and title		Signature		Month Day Year	

Instructions

Waste Generator Section (Items 1-9)

1. Enter the name of the facility at which asbestos waste is generated and the address where the facility is located. In the appropriate spaces, also enter the name of the owner of the facility and the owner's phone number.
2. If a demolition or renovation, enter the name and address of the company and authorized agent responsible for performing the asbestos removal. In the appropriate spaces, also enter the phone number of the operator.
3. Enter the name, address, and physical site location of the waste disposal site (WDS) that will be receiving the asbestos materials. In the appropriate spaces, also enter the phone number of the WDS. Enter "on-site" if the waste will be disposed of on the generator's property.
4. Provide the name and address of the local, state, or EPA regional office responsible for administering the asbestos NESHAP Program.
5. Indicate the types of asbestos waste materials generated. If from a demolition or renovation, indicate the amount of asbestos that is:
 - a. Friable asbestos material
 - b. Nonfriable asbestos material.
6. Enter the number of containers used to transport the asbestos materials listed in Item 5. Also, enter one of the following container codes used in transporting each type of asbestos material (specify any other type of container used if not listed below).
 - a. DM - Metal drums, barrels
 - b. DP - Plastic drums, barrels
 - c. BA - 6 mil plastic bags or wrapping
7. Enter the quantities of each type of asbestos material removed in units of cubic meters (cubic yards).
8. Use this space to indicate special transportation, treatment, storage, or disposal or Bill of Lading information. If an alternate WDS is designated, note it here. Emergency response telephone number or similar information may be included here.
9. The authorized agent of the waste generator must read and then sign and date this certification. The date is the date of receipt by transporter.

NOTE:

The waste generator must retain a copy of this form.

Transporter Section (Items 10-11)

10. & 11. Enter name, address, and telephone number of each transporter used, if applicable. Print or type the full name and title of person accepting responsibility and acknowledging receipt of materials as listed on this waste shipment record for transport. Enter date of receipt and signature.

NOTES:

The transporter must retain a copy of this form.

Disposal Site Section (Items 12-13)

12. The authorized representative of the WDS must note in this space any discrepancy between waste described on this manifest and waste actually received, as well as any improperly enclosed or contained waste. Any rejected materials should be listed and destination of those materials provided. A site that converts asbestos-containing waste material to non-asbestos material is considered a WDS.

13. The signature (by hand) of the authorized WDS agent indicates acceptance and agreement with statements on this manifest except as noted in item 12. The date is the date of signature and receipt of shipment.

NOTES:

1. The WDS must retain a completed copy of this form. The WDS must also send a completed copy to the operator listed in Item 2.
2. The waste must be delivered to the landfill within 35 days of the date in Item 9.